

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028277**Date Inspected:** 27-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Scott Kourtum and John Pagliero			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	SAS OBG		

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-W2.5@ 5030mm, 13W-W2.4@2720 and 13W-PP121.2@1900 drop-in top deck plates inside, QA randomly observed ABF/JV qualified welder Lin E. Yun continuing to perform CJP groove welding repair at locations Y=570mm, Y=700mm, Y=2500mm and Y=1330mm per Caltrans approved Request for Weld Repair (RWR) #201208-066, #201208-067 and #201208-065. The welder was observed manually welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans approved welding procedure ABF-WPS-D15-1004 Repair. The second time repair excavations were preheated to more than 225 degree Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket put in plate on top of the deck prior/during welding. During the shift, ABF QC John Pagliero was noted monitoring the welder with measured working current of 126 amperes on the 3.2mm E7018H4R electrode and adjusted preheat temperature of 325°F during welding. The welder completed the weld repair mentioned above during the shift and performed the Post Weld Heat Treatment (PWHT) of 450°F and held it for one (1) hour after welding as required. The welder has moved to another Y=2500mm location but the same weld Identification. This repair location is being welded per Caltrans approved RWR#201208-065 using the same process and implementing the same procedure. Repair welding at this location was also completed during the shift. The following three(3 second time and one first time repairs were noted excavated and welded during the shift;

Y-location	Length	Width	Depth	Remarks
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1. 570mm 100mm 45mm 11mm R2 - completed (W2.5@5030).
2. 700mm 70mm 45mm 11mm R2 - completed (W2.5@5030).
3. 2500mm 100mm 50mm 9mm R2 - completed (W2.4@2720).
4. 1330mm 100mm 45mm 12mm R1 completed (PP121.2@1900).

At OBG 13W-WK-SK1 K-plate inside, ABF welder Richard Garcia was observed continuing to perform repair welding. ABF welder Richard Garcia was observed welding in the 2G (horizontal) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode. The welder preheated the repair area and its vicinity to more than 250°F during welding. During the shift, ABF QV John Pagliero was noted monitoring the welder with measured working current of 125 amperes on the 3.2mm E7018H4R electrode. The following two (2) first time repairs were noted excavated and welded during the shift;

Y-location	Length	Width	Depth	Remarks
1. 1050mm	210mm	30mm	18mm	Completed.
2. 1250mm	120mm	35mm	24mm	Completed.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on the CJP welding of floor beam and drop-in top deck plate various field weld joints. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

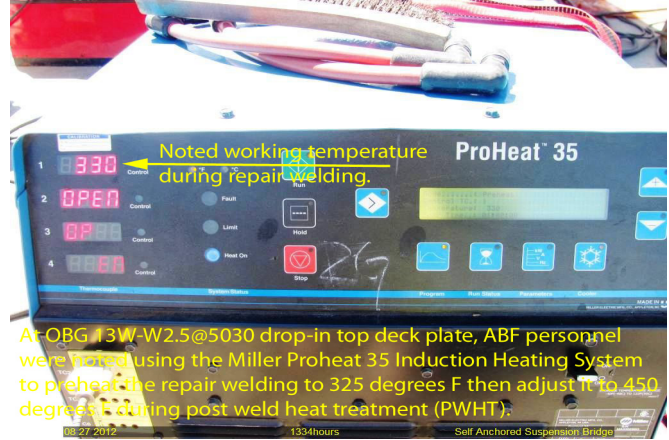
1. 13W-PP124.5-W2.8 BW1 - web splice butt joint weld cover QA verified.
2. 13W-PP124.5-W2.8 BF1 - flange splice butt joint weld cover QA verified.
3. 13W-PP124.0-W2.8 BF1 - web splice butt joint weld cover QA verified.
4. 13W-PP122.0-W2.8 BF1 - web splice butt joint weld cover QA verified.
5. 13W-PP123.6-@950 - drop-in top deck plate splice butt joint weld cover QA verified.
6. 13W-W2.2-@5180 - drop-in top deck plate splice butt joint weld cover QA verified.
7. 13W-PP124.65-W3 – longitudinal diaphragm stiffener fillet weld joints QA verified.
8. 13W-PP124.65-W3 – four lifting lug bracket remnants “pyramid” slope ratio and smooth grinding



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At OBG 13W-W2.5@5030 drop-in top deck plate inside, ABF welder Lin E. Yun was observed performing 4G (overhead) welding repair on welded butt joint At Y=700mm.



Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer